

## CLAIMS

What is claimed is:

1. A display device with a polysilicon substrate, comprising:  
a display region;  
a first plurality of thin film transistors in the display region; and  
primary crystal grain boundaries in the polysilicon substrate in the display region;  
wherein the primary crystal grain boundaries are inclined to a first direction of current flowing from source to drain of each of the first plurality of thin film transistors at an angle of  $-30^{\circ}$  to  $30^{\circ}$ .
2. The display device according to claim 1, wherein the primary crystal grain boundaries are parallel to the first direction of current.
3. The display device according to claim 2, wherein a first number of the primary crystal grain boundaries exist in active channel regions of each of the first plurality of thin film transistors.
4. The display device according to claim 1, wherein the display device is an organic electroluminescent display device.
5. The display device according to claim 1, wherein the polysilicon substrate is fabricated by an SLS (sequential lateral solidification) method.
6. The display device according to claim 1, further comprising:  
a driving region of the display device; and  
a second plurality of thin film transistors in the driving region;  
wherein the primary crystal grain boundaries are inclined to a second direction of current flowing from source to drain of each of the second plurality of thin film transistors at an angle of  $30^{\circ}$  to  $150^{\circ}$ .
7. The display device according to claim 6, wherein the primary crystal grain boundaries are perpendicular to the second direction of current.

8. The display device according to claim 7, wherein a second number of the primary crystal grain boundaries exist in active channel regions of each of the second plurality of thin film transistors.

9. The display device according to claim 6, wherein the display device is an organic electroluminescent display device.

10. The display device according to claim 6, wherein the polysilicon substrate is fabricated by an SLS (sequential lateral solidification) method.

11. A display device with a polysilicon substrate comprising:  
a driving region;  
a plurality of thin film transistors in the driving region; and  
primary crystal grain boundaries in the polysilicon substrate in the driving region;  
wherein the primary crystal grain boundaries are inclined to a direction of current flowing from source to drain of each of the plurality of thin film transistors at an angle of 30° to 150°.